

Appl. No. 10/034,586
Response AF, dated February 18, 2005
Reply to Final Office Action of December 29, 2004

REMARKS

Applicant has carefully reviewed the Final Office Action mailed December 29, 2004. Claims 1-24 are pending and have been rejected. Favorable reconsideration is respectfully requested.

Applicant once again calls the Examiner's attention to the fact that formal drawings were submitted on December 27, 2001, but there has been no indication of approval of the drawings by the Examiner or the Official Draftsman. Applicant requests that the Examiner/Official Draftsman indicate approval or non-approval of the formal drawings with the next PTO communication.

Applicant respectfully traverses the Examiner's rejection of claims 1, 5, 12 and 23-24 under 35 U.S.C. §112, first paragraph, for lack of enablement. In particular, the Examiner has asserted that the claimed invention, as described in the application, is "incapable of being used." Applicant respectfully disagrees. If the Examiner persists in asserting that the claimed invention is inoperative, Applicant will consider submitting an appropriate Declaration including experimental data. However, it is respectfully asserted that this is not necessary as Applicant believes the present disclosure enables the invention. It is further believed that the Examiner is not taking into account specific teachings.

As described in the specification and illustrated in the Figures, the invention pertains to a catheter shaft having an outer surface that bears a raised pattern on the outer surface. In the particular, but non-limiting, embodiment shown in the Figures, the raised pattern resembles a plurality of diamond-shaped raised portions separated by channels. As described in the specification, this pattern may be formed in a variety of ways, including removing material between the raised portions to form the channels. The thinned portions (the channels as recited, for example, in claim 2) provide the catheter shaft with acceptable flexibility.

When the catheter shaft is not being torqued, i.e., is at rest with no twisting force being applied to the catheter shaft, adjacent raised portions are not in contact with each other as they are separated by the thinned portions discussed above and clearly shown in the Figures. When torque is applied by, for example, twisting the proximal end of the catheter shaft, the catheter shaft itself begins to twist. As the catheter shaft continues to twist, adjacent raised portions will contact each other. As a result, the catheter shaft will not twist any further, even though torque is

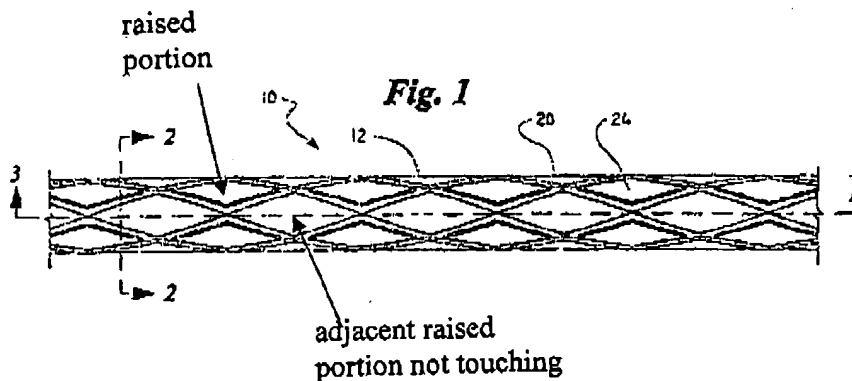
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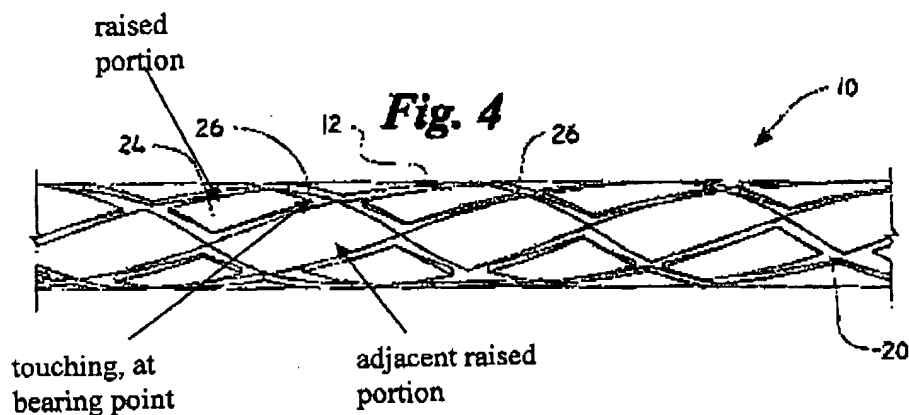
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still being applied to, for example, the proximal end of the catheter shaft. Thus, any additional twisting motion applied to the proximal end of the catheter shaft will be transmitted to the distal end of the catheter shaft. The Examiner does not seem to be giving this teaching adequate weight.

A careful review of Figure 1 (no torque applied) will show a plurality of raised diamond-shaped portions 24 that are separated by channels that represent thinned portions of the catheter shaft.



In contrast, a careful review of Figure 4 (torque applied) will show how the catheter shaft has twisted sufficiently to permit adjacent raised portions to contact each other. See, for example, how one raised portion contacts another raised portion at bearing point 26.



One of ordinary skill in the art, having read the specification and reviewed the Figures would readily understand the claimed invention. The claimed invention is fully and completely

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enabled within the originally filed application. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claims 1-5, 11-13 and 20-22 under 35 U.S.C. §102(b) as anticipated by Jaraczewski et al., U.S. Patent No. 4,817,613. In order to anticipate, the cited reference must disclose each and every claimed element. Jaraczewski et al. fail to do so.

In particular, the claimed invention requires (claims 1 and 12) that adjacent raised shapes are separated when the shaft is not being torqued but that adjacent raised shapes move toward one another when the shaft is torqued, or (claim 5) that the bearing points are separated when the shaft is not being torqued but move toward one another when the shaft is torqued.

Jaraczewski et al. do not disclose this. Rather, the reference describes a catheter shaft that includes first and second torque transmitting layers that appear to be braids. While these torque transmitting layers do presumably improve torque transmission along Jaraczewski et al.'s catheter, these torque transmitting layers do not meet the claimed invention. Specifically, the claimed invention requires that adjacent raised shapes (or bearing points) be separated from each other when the catheter shaft is not being torqued but move toward each other when the catheter shaft is torqued. The torque transmitting layers described by the reference do not appear to provide for adjacent raised shapes that are separated from each other when the catheter shaft is not being torqued, as braids include two or more ribbons or wires that are woven together in an over-under pattern, and thus adjacent raised portions are in contact at all times.

Thus, for at least this reason, the cited reference fails to describe each and every claimed element, and therefore, the reference fails to anticipate the claimed invention. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claims 6-10 and 14-19 under 35 U.S.C. §103(a) as unpatentable over Jaraczewski et al., U.S. Patent No. 4,817,613. The reference is distinguished above as failing to teach the invention of claim 5 (from which claims 6-10 depend) and claim 12 (from which claims 14-19 depend). In order to establish a *prima facie* obviousness rejection over a single reference, it is necessary that the single reference include or suggest each and every claimed element. As claims 5 and 12 are patentable over the

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reference, dependent claims 6-10 and 14-19, which add additional limitations, are similarly patentable. Favorable reconsideration is respectfully requested.

Applicant respectfully traverses the Examiner's rejection of claim 14 under 35 U.S.C. §103(a) as unpatentable over Jaraczewski et al., U.S. Patent No. 4,817,613, in view of Moore et al., U.S. Patent No. 4,669,465. While Moore et al. is relied upon to suggest a balloon catheter, Applicant notes that Moore et al. fail to remedy the noted shortcomings of Jaraczewski et al. Thus, the rejection is flawed and should be withdrawn. Favorable reconsideration is respectfully requested.

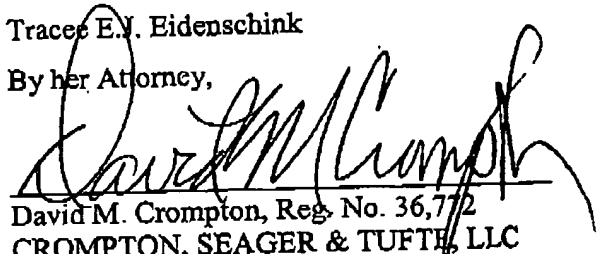
Reexamination and reconsideration are respectfully requested. It is respectfully submitted that the claims are now in condition for allowance, issuance of a Notice of Allowance in due course is requested. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Respectfully submitted,

Tracee E.V. Eidenschink

By her Attorney,

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David M. Crompton, Reg. No. 36,772
CROMPTON, SEAGER & TUFTE, LLC
1221 Nicollet Avenue, Suite 800
Minneapolis, MN 55403-2420
Telephone: (612) 677-9050
Facsimile: (612) 359-9349